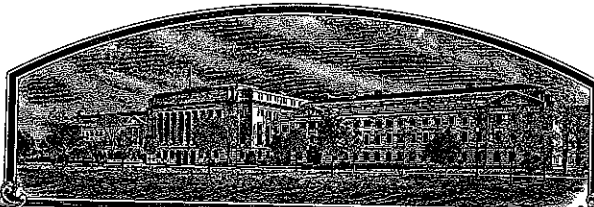


No.

200500172



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Rutgers, The State University of New Jersey

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR PROPAGATING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE FOREGOING PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

FESCUE, TALL

'Six Point'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this twentieth day of August, in the year two thousand and eight.

Attest:



*[Signature]*

Commissioner  
Plant Variety Protection Office  
A. A. 1000

*[Signature]*

Two

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE  
(Instructions and information collection burden statement on reverse)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                 |                                                                                                                                                                                                                                                                                                                                               |                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| 1. NAME OF OWNER<br><b>Rutgers University of New Jersey</b><br><b>(601:84/2005) The State</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                 | 2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME<br>POD                                                                                                                                                                                                                                                                                          | 3. VARIETY NAME<br>Six Point                                                                                         |
| 4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)<br><br>Foran Hall<br>Plant Biology & Pathology<br>59 Dudley Road<br>New Brunswick, NJ<br>08901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                 | 5. TELEPHONE (Include area code)<br>732-932-9711 ext. 160                                                                                                                                                                                                                                                                                     | FOR OFFICIAL USE ONLY<br>PVPO NUMBER<br><b>200500172</b>                                                             |
| 6. FAX (Include area code)<br>732-932-9441                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                 | FILING DATE<br><b>March 2, 2005</b>                                                                                                                                                                                                                                                                                                           |                                                                                                                      |
| 7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.)<br><b>Government Institution</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 8. IF INCORPORATED, GIVE STATE OF INCORPORATION | 9. DATE OF INCORPORATION                                                                                                                                                                                                                                                                                                                      |                                                                                                                      |
| 10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers.)<br><br>Dr. William Meyer<br>c/o Rutgers University<br>Plant Biology & Pathology Dept.<br>59 Dudley Road<br>New Brunswick, New Jersey<br>08901                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                 | FEE SCHEDULE<br>FILING AND EXAMINATION FEES:<br><b>\$3652</b><br>DATE <b>3/2/2005</b><br>CERTIFICATION FEE:<br><b>\$768.00</b><br>DATE <b>8/12/2008</b>                                                                                                                                                                                       |                                                                                                                      |
| 11. TELEPHONE (Include area code)<br>732-932-9711 Ext. 160                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 12. FAX (Include area code)<br>732-932-9441     | 13. E-MAIL                                                                                                                                                                                                                                                                                                                                    | 14. CROP KIND (Common Name)<br>Tall Fescue                                                                           |
| 15. GENUS AND SPECIES NAME OF CROP<br><i>Festuca arundinacea</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                 | 16. FAMILY NAME (Botanical)<br><i>Poaceae</i>                                                                                                                                                                                                                                                                                                 | 17. IS THE VARIETY A FIRST GENERATION HYBRID?<br><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO |
| 18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)<br>a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety<br>b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness<br>c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety<br>d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional)<br>e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership<br>f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)<br>g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$2,705), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office) |                                                 | 19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act)<br><input type="checkbox"/> YES (If "yes", answer items 20 and 21 below) <input checked="" type="checkbox"/> NO (If "no", go to item 22)                                                   |                                                                                                                      |
| 20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO THE NUMBER OF CLASSES?<br>IF YES, WHICH CLASSES? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                 | 21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?<br>IF YES, SPECIFY THE NUMBER 1,2,3, etc. <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED<br>(If additional explanation is necessary, please use the space indicated on the reverse.) |                                                                                                                      |
| 22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U.S. OR OTHER COUNTRIES?<br><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO<br>IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                 | 23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)?<br><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO<br>IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)      |                                                                                                                      |
| 24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.<br><br>The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.<br><br>Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.                                                                                                                                                                                |                                                 |                                                                                                                                                                                                                                                                                                                                               |                                                                                                                      |
| SIGNATURE OF OWNER<br><i>Dr. Keith Cooper</i><br>NAME (Please print or type)<br>Dr. Keith Cooper                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                 | SIGNATURE OF OWNER<br><br>NAME (Please print or type)                                                                                                                                                                                                                                                                                         |                                                                                                                      |
| CAPACITY OR TITLE<br>Acting Executive Dean                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                 | CAPACITY OR TITLE                                                                                                                                                                                                                                                                                                                             |                                                                                                                      |
| DATE<br>1/10/15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                 | DATE                                                                                                                                                                                                                                                                                                                                          |                                                                                                                      |

S&amp;T-470 (07-01) designed by the Plant Variety Protection Office with WordPerfect 9.0 Replaces STD-470 (04-01) which is obsolete. (See reverse for instructions and information collection burden statement.)

**Exhibit A:**  
**Origin and Breeding History**  
**Six Point (POD) Tall Fescue**

Six Point tall fescue (*Festuca arundinacea* Schreb.) is a medium low-growing, dark green, medium-fine-leaved, turf-type tall fescue selected from the maternal progenies of 80 clones. Six Point was selected for medium crown density, dark-green color, semi-dwarf growth habit, and medium maturity and improved brown patch resistance (caused by the fungus *Rhizoctonia solani* Kuhn). Approximately 97% of the parental germplasm in Six Point contain the *Neotyphodium* endophyte.

The 80 parents of Six Point tall fescue were selected from maternal sources evaluated in progeny turf plots at the Rutgers Plant Science Research and Extension Farm at Adelphia, NJ from the 2000 tall fescue trial. Forty-six percent of the maternal germplasm trace to a few plants selected from the University of GA State Hospital in 1977. Thirteen percent trace to a tall fescue clone with crown rust resistance identified in 1988. Eleven percent trace to several plants selected from or related to Apache tall fescue. Approximately ten percent traces to several plants selected from the Princeton University campus and used in the development of Rebel. Several of these plants were identified as having rhizomes in 1977. Nine percent trace to a plant designated as TF-M-3 which was used in an inter-specific crossing program with perennial ryegrass. Four percent traces to a few plants selected from a farm in North Carolina, 1975 and used in the development of Rebel II. Another four percent traces to a few plants selected from a park in Lexington, KY in 1979. Another three percent trace to plants selected from or related to Crewcut tall fescue.

All of the parental germplasm sources of Six Point tall fescue were part of a recurrent selection population improvement program at NJAES. The germplasm originated from plants selected from old turfs of the United States in a germplasm collection program initiated in 1962, to plants selected from or related to Rebel tall fescue (Funk et al., 1981). Attractive clones were selected from old turfs in Birmingham, AL; Athens, Atlanta, and Milledgeville, GA; Preston, ID; Baltimore, MD; Bayonne, Jersey City, Elizabeth, Princeton, and Cape May, NJ; eastern North Carolina; Philadelphia, PA; Nashville, TN; Lexington, KY; Cincinnati, OH; Dallas, TX; and northern Mississippi. The tall fescue plants selected from old turfs were of unknown origin. All were large patches of turf surviving in stressful environments indicating that they had persisted and developed over a period of many years.

A few hundred attractive, turf-type plants were collected and established in spaced-plant nurseries and/or frequently mowed clonal evaluation trials at Rutgers University. All but a few dozen of the most promising plants were quickly discarded. The best selections were very different from any tall fescue variety in existence at the time of collection. They produced lower-growing turfs with finer leaves, greater density, darker color, and greater tolerance of close mowing.

The most promising plants were identified by their persistence and appearance in old turfs and their performance in spaced-plant nurseries, mowed clonal evaluation tests, and single-plant progeny trails under turf maintenance. Intercrosses of the best performing plants were subjected to varying cycles of phenotypic and genotypic selection depending on their date of collection. New sources of germplasm were added to the breeding program as it became available from the continuing collection program. Each cycle of selection showed continued progress in producing lower-growing, darker green, attractive plants with improved turf performance scores. Selection was also effective in maintaining high seed yields, and good stress tolerance. Substantial progress was made in developing tall fescues with finer leaves, a lower growth profile, increased persistence under close mowing, and increased density.

Large numbers of single-plant progenies were seeded in turf evaluation trials at the Plant Science Research Farm at Adelphia, NJ in 2000. The plants selected for progeny evaluation were selected from spaced-plant nurseries at Adelphia following varying cycles of phenotypic and genotypic selection of germplasm selected from old turfs and germplasm selected from or related to Rebel tall fescue.

Approximately, 1800 tillers were selected from the best performing single-plant progeny turf plots from the 2000 tall fescue test at Adelphia in the spring of 2002. Twenty different single-plot progenies were selected from 900 plots from 12 different populations from the 2000 test. Selection was based on performance records as well as appearance at the time the plants were selected from these progeny plots. These plants were established in greenhouse flats and screened to 900 plants prior to their transfer to a spaced-plant nursery in the spring of 2002. Selection of plants from each progeny was based on an attractive dark green color, medium-fine leaves, abundant tillering, high shoot density and freedom from disease.

In the spring of 2003, 80 plants were selected from this nursery based on dark green color, semi-dwarf growth habit, medium density, high seed yield potential, medium-early maturity and

semi-dwarf growth habit, medium density, high seed yield potential, medium-early maturity and freedom from disease. These plants were moved to an isolated crossing block and inter-pollinated. Seed from these 80 plants was harvested in bulk and designated as breeder seed of Six Point tall fescue. These plants produced approximately 2.75 pounds of breeder seed in 2003. In the fall of 2003, 50 grams of breeder seed was sent to Advanta Seeds Pacific to include in a morphological nursery for Plant Variety Protection. The same plants were harvested again in 2004 to produce another 6.25 pounds of breeder seed. Replicated turf plots of Six Point were established at Adelphia in the fall of 2003. The breeder seed from both years was sent to ProSeeds Inc. for Foundation and Certified seed increase.

## Diagram of Origin and Breeding History of Six Point Tall Fescue

### 1. 1962 to 2002

Germplasm collection, evaluation, and genetic improvement.

### 2. 2002

Selected 1800 plants from 20 of the best performing single-plant progeny turf plots planted in 2000. Established 900 selected plants in an isolated spaced-plant nursery at Adelphia, NJ.

### 4. 2003

Eighty plants were selected from this nursery and moved to an isolated crossing block. The plants were selected for dark-green color, semi-dwarf growth habit, medium shoot density, high seed yield potential, medium-early maturity and freedom from disease. These 80 plants were harvested as Six Point tall fescue and produced approximately 2.75 pounds of breeder seed in 2003. The same plants were harvested again in 2004 for another 6.25 pounds of breeder seed. Replicated turf plots of Six Point were established at Adelphia in the fall of 2003. The Breeder seed from both years was sent to Proseeds Inc. for foundation and certified seed increase.

## References

1. Buckner, Robert C., Jerrell B. Powell, and Rod V. Frakes. 1979. Historical Development, in Buckner, Robert C., and Lowell P. Bush (editors) Tall Fescue. Agronomy Monograph 20. American Society of Agronomy, Crop Science Society of America, Soil Science Society of America, Inc., Publishers. Madison, Wisconsin pages 1-8.
2. Funk, C.R., R.E. Engel, W.K. Dickson, and R.H. Hurley. 1981. Registration of Rebel tall fescue. Crop Sci. 21:632.

2. Breeder Seed Maintenance:

A breeder seed multiplication was planted in isolation in 2002 in New Brunswick, New Jersey. Seed was harvested in bulk in 2003 and is maintained in cold storage. Seed propagation is limited to three generations, one each of foundation, registered, and certified.

3. Stability and Uniformity:

Six Point has been a stable uniform cultivar over two generations. No off-type or variant plants have been observed during the multiplication or reproduction. Turf plots and foundation class fields of Six Point have been uniform and stable.  
(RT:6/30/2006)



**Exhibit B:****Novelty Statement of Six Point (POD) Tall Fescue**

The following summary outlines the distinctive characteristics of Six Point. The novelty of Six Point is based on the unique combination of these characteristics. Six Point is most similar to Rebel II, but may be differentiated by using the following criteria:

- a. The genetic color of Six Point is darker compared to Rebel II (tables 1A, 1B).
- b. Six Point has a mature plant height at least 19 cm shorter than Rebel II (tables 1A, 1B).
- c. The flag leaf characteristics for Six Point; height, width, length, sheath length and internode length are all less compared to Rebel II (tables 1A, 1B).
- d. The panicle length is at least 11 cm shorter for Six Point compared to Rebel II (tables 1A, 1B).
- e. The leaf blade characteristics for Six Point; height, length, sheath length and width are all less compared to Rebel II (tables 1A, 1B).
- f. The length of the panicle <sup>ro</sup>form the lower most whorl to the apex is shorter for Six Point than Rebel II (tables 2A, 2B, illus. 1).
- g. The lemma length and awn length are all shorter for Six Point compared to Rebel II (tables 2A, 2B).
- h. Six Point has a palea length that is less than Rebel II (tables 2A, 2B).
- i. Six Point has fewer spikelets per panicle <sup>ic</sup> compared to Rebel II (tables 2A, 2B).  
(bt:3/4/06)
- j. The distance between the two lower most whorls for Six Point is shorter compared to Rebel II (tables 2A, 2B, illus. 1).
- k. The length of the longest branch of the lower most whorl is shorter for Six Point compared to Rebel II (tables 2A, 2B).

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Jamie L. Whitten Building, Washington, D.C. 20250. When replying, refer to OMB No. 0581-0055 and form number in your letter. Under the PRA of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

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**U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY PROGRAM  
PLANT VARIETY PROTECTION OFFICE  
BELTSVILLE, MD 20705**

**EXHIBIT C  
(TALL & MEADOW FESCUES)**

**OBJECTIVE DESCRIPTION OF VARIETY  
TALL & MEADOW FESCUES  
(*Festuca* spp.)**

|                                                                                                                          |                              |                           |
|--------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------|
| NAME OF APPLICANT(S)<br>Rutgers University <i>The State University of New Jersey</i><br><del>c/o Dr. William Meyer</del> | TEMPORARY DESIGNATION<br>POD | VARIETY NAME<br>Six Point |
|--------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------|

(BT: 2/4/2006)

|                                                                                                                                                                                                                 |                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code)<br>Rutgers University - Cook College<br>Foran Hall<br>Plant Biology and Pathology Dept.<br>59 Dudley Road<br>New Brunswick, New Jersey 08901 | FOR OFFICIAL USE ONLY<br>PVPO NUMBER<br><b>200500172</b> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|

Place the appropriate number that describes the varietal characteristics of this variety in the boxes below. Use leading zeroes when necessary (e.g. 089). Characteristics described, including numerical measurements, should represent those that are typical for the variety. Measured data should be for SPACED PLANTS. Royal Horticultural Society or any recognized color fan may be used to determine plant colors. Characteristics marked with an asterisk \* are characteristics which should be recorded.

**\* 1. SPECIES: (With comparison varieties, use varieties within the species of the application variety)**

  X   1 = *F. arundinacea* (Tall)

**Turf Types**

|                 |               |               |                   |              |              |
|-----------------|---------------|---------------|-------------------|--------------|--------------|
| 1 = Kentucky 31 | 2 = Rebel     | 3 = Olympic   | 4 = Bonanza       | 5 = Arid     | 6 = Rebel II |
| 7 = Shortstop   | 8 = Silverado | 9 = Rebel Jr. | 10 = Mini Mustang | 11 = Crewcut | 12 = Bonsai  |

**Forage Types**

|                  |                 |              |             |
|------------------|-----------------|--------------|-------------|
| 20 = Kentucky 31 | 21 = Martin     | 22 = Forager | 23 = Mozark |
| 24 = Kenhy       | 25 = AU Triumph | 26 = Fawn    | 27 = Cajun  |

       2 = *F. pratensis* (Meadow)

|             |               |               |             |             |
|-------------|---------------|---------------|-------------|-------------|
| 30 = Admira | 31 = Beaumont | 32 = Comtessa | 33 = Ensign | 34 = Trader |
|-------------|---------------|---------------|-------------|-------------|

**\* 2. CYTOLOGY:**

       42        Chromosome Number

**3. ADAPTATION: (0 = Not Tested; 1 = Not Adapted; 2 = Adapted)**

  2   Transition Zone      2   West      2   Northeast           Other (Specify): \_\_\_\_\_

**\* 4. MATURITY: (Date First Headed, 10% of Panicle Emergence)**

  5   Maturity Class    1 = Very early (    )    2 = AU Triumph    3 = Early (Fawn)    4 = K31, Kenhy    5 = Medium (Rebel)

4. MATURITY: (continued)

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6 = Bonanza

7 = Late (Silverado)

8 = ( )

9 = Very late

Date Headed 29.50 days after April 1, \_\_\_\_\_

Location Albany, OR

\_\_\_\_ Days earlier than \_\_\_\_\_  
 Maturity same as 6  
 \_\_\_\_ Days later than \_\_\_\_\_

Comparison Variety

\* 5. MATURE PLANT HEIGHT CM: (Average of 100 culms from crown to top of panicle, if panicle is nodding, straighten)

\* INTERNODE LENGTH CM: (First internode subtending the flag leaf)

94.43 cm Height

17.13 cm InternodeLength

19.10 cm Shorter than 6

5.30 cm Shorter than 6

Height same as \_\_\_\_\_

Length same as \_\_\_\_\_

\_\_\_\_ cm Taller than \_\_\_\_\_

\_\_\_\_ cm Longer than \_\_\_\_\_

Comparison Variety

Comparison Variety

\* HEIGHT AT EAR EMERGENCE CM: (Flag leaf height from crown to flag leaf node)

40.85 cm Height

13.53 cm Shorter than 6

Height same as \_\_\_\_\_

\_\_\_\_ cm Taller than \_\_\_\_\_

Comparison Variety

\* 6. GROWTH HABIT: (Mature Plants)

7 1 = Prostrate ( )

3 = Semiprostrate ( )

5 = Horizontal ( )

7 = Semierect (Rebel)

9 = Erect (Mini Mustang)

\* 7. RHIZOMES (Psuedo):

\_\_\_\_ mm Length 2

1 = Absent ( ) 2 = Rare (Rebel)

3 = Common ( )

\* 8. LEAF BLADE: (Tiller leaves/ turf color)

\* 6 Color: 1 = Light green ( )

3 = Medium light green ( )

5 = Green ( )

7 = Medium dark green ( )

9 = Very dark green ( )

4 Specify rating of comparison variety

\* 1 Anthocyanin: 1 = Absent ( )

9 = Present ( )

\* 1 Basal Hairs: 1 = Absent ( )

9 = Present ( )

(BT: 8/4/06) \* 9 Margins: 1 = Smooth ( )

5 = Semi-rough ( )

9 = Rough ( )

## 8. LEAF BLADE: (continued)

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\*\_5\_ Width Class: 1 = Very coarse ( ) 3 = Coarse ( ) 5 = Medium ( )

7 = Fine ( ) 9 = Very Fine ( )

\* TILLER LEAF LENGTH CM: (First leaf subtending the flag leaf)

\* TILLER LEAF WIDTH MM:

\_24.70\_ cm Tiller Leaf Length

\_8.75\_ mm Tiller Leaf Width

\_8.58\_ cm Shorter than \_6\_

\_1.13\_ mm Narrower than \_6\_

Length same as \_

Width same as \_

\_ \_ \_ cm Taller than \_

\_ \_ \_ mm Longer than \_

Comparison Variety

Comparison Variety

FLAG LEAF LENGTH CM:

FLAG LEAF WIDTH MM:

\_32.23\_ cm Flag Leaf Length

\_6.05\_ mm Flag Leaf Width

\_10.27\_ cm Shorter than \_6\_

\_0.68\_ mm Narrower than \_6\_

Length same as \_

Width same as \_

\_ \_ \_ cm Longer than \_

\_ \_ \_ mm Wider than \_

Comparison Variety

Comparison Variety

\* 9. LEAF SHEATH: (Basal Portion)

\*\_1\_ Anthocyanin (seedling): 1 = Absent (K31) 9 = Present ( )

\*\_9\_ Auricle Hairiness: 1 = Absent ( ) 9 = Present ( )

\* 10. PANICLE: (At seed maturity except where noted.)

\*\_3\_ Shape: 1 = Narrow-tapering ( ) 5 = Ovate ( ) 7 = Oblong ( ) 9 = Other (specify)

\*\_5\_ Type: 1 = Compact (appressed) 5 = Intermediate ( ) 7 = Open ( ) 9 = Other (specify)

\*\_9\_ Orientation: 1 = Nodding ( ) 9 = Erect ( )

\*\_1\_ Branch Pubescence: 1 = Glabrous ( ) 9 = Pubescent ( )

\*\_1\_ Anther Color (At anthesis): 1 = Yellowish Green 2 = Green 3 = Bluish Green  
4 = Purplish 5 = Reddish 6 = Other (Specify)\*\_1\_ Glume Color (At anthesis): 1 = Yellowish Green 2 = Green 3 = Bluish Green  
4 = Purplish 5 = Reddish 6 = Other (Specify)

\*\_74.58\_ cm Panicle Length (from base to tip, if nodding, straighten; after anthesis)

\_11.62\_ cm Shorter than \_6\_

Length same as \_

\_ \_ \_ cm Longer than \_

Comparison Variety

\* 11. SEED: (With Lemma & Pelea)

200500172

\* 1764 mg per 1000 seeds

486 mg Less than 6

Weight same as         

         mg More than         

Comparison Variety

PALEA: (Keels or Margins) 5 Hairs:

1 = Absent ( )

5 = Short (Missouri 96)

9 = Long ( )

LEMMA: 5 Hairs:

1 = Absent (Kenhy)

5 = Several ( )

9 = Many (Missouri 96)

5.60 mm Lemma Length (Mature)

1.45 mm Lemma Width

0.14 mm Shorter than 6

Length same as         

         mm Longer than         

Comparison Variety

         mm Narrower than         

Width same as 6

         mm Wider than         

Comparison Variety

\*AWNS: 9 AWNS: 1 = Absent ( ) 9 = Present (Falcon)

<sup>96</sup>  
~~100~~ % Plants with awns  
(BF 8/4/06)

1.25 mm Awn length (Of those present.)

0.45 mm Shorter than 6

Length same as         

         mm Longer than         

Comparison Variety

12. DISEASE, INSECT, AND NEMATODE REACTION: (0= Not Tested 1= Least Resistant 9= Most Resistant)

0 Melting-out *Drechslera poae*

0 Blind Seed *Gloeotinia temulenta*

0 Leaf Spot *D. siccans*

0 Dollar Spot *Lanzia, Mollerdiscus* spp.

0 Net Blotch *D. dictyoides*

0 Stem Rust *Puccinia graminis*

0 Brown Patch *Rhizoctonia solani*

0 T. Blight *Typhula incarnata*

0 C. Leaf Spot *Cercospora fectuae*

0 Pythium Blight *Pythium* spp.

0 Pink Snow Mold *Gerlachia nivalis*

0 Powdery Mildew *Erysiphe graminis*

0 Silver Top *F. tricinctum, F. roseum*

0 Crown Rust *Puccinia coronata*

0 Other Disease                                                 

0 Other Insect                                                 

0 Other Nematode                                                 

13. ENVIRONMENTAL STRESS

6 Drought Stress

1 = Susceptible ( )

5 = Tolerant ( )

9 = Resistant ( )

         Shade Stress

1 = Susceptible ( )

5 = Tolerant ( )

9 = Resistant ( )

## 13. ENVIRONMENTAL STRESS: (continued)

200500172

\_6\_ Winter Stress      1 = Susceptible ( )      5 = Tolerant ( )      9 = Resistant ( )

14. GIVE VARIETY OR VARIETIES THAT MOST CLOSELY RESEMBLE THE APPLICATION VARIETY. For the following characteristics, indicate the degree of resemblance with the following scale:

1 = Application variety is less than comparison variety    2 = Same as    3 = More than, better, greater, darker, etc.

| Character     | Varieties | Rating | Character     | Varieties | Rating |
|---------------|-----------|--------|---------------|-----------|--------|
| Leaf Width    | Rebel II  | 1      | Leaf Color    | Rebel II  | 3      |
| Panicle Color | Rebel II  | 2      | Panicle Shape | Rebel II  | 2      |
| Seed Size     | Rebel II  | 1      | Cold Injury   | Rebel II  | 2      |
| Winter Color  | Rebel II  | 3      | Heat          | Rebel II  | 2      |
| Disease       | Rebel II  | 3      |               |           |        |

\* 15. EXPERIMENTAL: Give a brief summary of the experimental design utilized to collect the data used on this form. Cultural conditions, number of plants measured and plant spacing must be specified.

Two morphological nurseries were established in September 2003 and designated 03PVPFA1 and 03PVPFA2. Nursery 03PVPFA1 - Location 1 located in Talbot, Oregon. Nursery 03PVPFA2 - Location 2 located in Albany, Oregon. Soil profile for 03PVPFA1 - Location 1 consists of a Newberg silt loam, well drained, with a pH of 5.8. Soil profile for 03PVPFA2 - Location 2 consists of a Woodburn silt loam, medium-well drained, with a pH of 5.2.

Experimental design consisted of 11 entries; 4 replications per entry; 20 plants per replication; for a total of 80 plants per entry. Crewcut, Forte', KY-31, and Rebel II were used as standards. Plants were established on 2.5 foot centers with a skip row between replications and between entries.

The nurseries received 30 pounds of nitrogen per acre rate following establishment and 50 pounds of nitrogen per acre in 2004. The fertilizer source was 15 - 15 - 15 and was applied as a split application with ½ applied in the fall and ½ in the spring. The nurseries were sprayed in the spring with Quilt (2oz/acre rate), to prevent stem rust.

Data was analyzed using analysis of variance for a randomized complete block design. Means were calculated for each replication and then analyzed for tables 1A, 1B, 2A, 2B, 3A, and 3B.

Tables 4A, and 4B data was analyzed using binary data confidence intervals. The confidence intervals are given for the characteristics which expressed significant differences.

**Exhibit D:****Additional Description****Six Point (POD) Tall Fescue**

Six Point is an improved turf-type tall fescue. It has a shorter mature plant height (tables 1A, 1B) than previously released tall fescue cultivars, such as Crewcut, KY-31 and Rebel II. Six Point has a medium maturity with a heading date earlier than ATF804, and Crewcut (tables 1A, 1B). Six Point exhibits a darker genetic color compared to Crewcut, KY-31 and Rebel II (tables 1A, 1B). The length of the panicle is shorter for Six Point compared to KY-31 and Rebel II, but longer than Cortez II and ATF804 (tables 1A, 1B). The flag leaf length is shorter for Six Point compared to ATF804, Crewcut, KY-31 and Rebel II (tables 1A, 1B). The flag leaf height and sheath length of Six Point is longer than Cortez II and ATF804, but shorter than Crewcut, Rebel II and KY-31 (tables 1A, 1B). Six Point has a longer flag leaf internode length compared to Falcon IV, Cortez II, and ~~ATF804~~ but is shorter than Rebel II and KY-31 (tables 1A, 1B). The leaf blade characteristics; height, length, and sheath length are shorter for Six Point compared to Crewcut, KY-31 and Rebel II (tables 1A, 1B). The leaf blade length of Six Point is longer than Cortez II and ATF804 (tables 1A, 1B). Six Point has a shorter palea, glume, and lemma length compared to Crewcut, KY-31, and Rebel II (tables 2A, 2B). The length of the panicle from the lower most whorl to the apex is shorter for Six Point compared to Crewcut, KY-31, and Rebel II, but longer than Cortez II and ATF804 (tables 2A, 2B). The number of spikelets per panicle is less for Six Point than KY-31, and Rebel II, but more than Cortez II and ATF804 (tables 2A, 2B). The distance between the two lower most whorls is shorter for Six Point compared to Crewcut, KY-31 and Rebel II, but longer than Cortez II and ATF804 (tables 2A, 2B, illus. 1). The length of the longest branch of the lower most whorl is shorter for Six Point compared to Crewcut, KY-31 and Rebel II, but longer than Cortez II and ATF804 (tables 2A, 2B, illus. 1). The milligram weight of 1,000 seeds of Six Point is less than Forte, ATF804, Cortez II, Falcon IV, Crewcut, KY-31, and Rebel II (tables ~~2A, 2B~~).

4 4  
(OT: 7/17/08 per applicant's approval)

Table 1A 2004 Morphological Data - Location 1

| Cultivar   | Genetic Color<br>(Scale: 1-9, 9 = Dark) | Heading Date<br>(days after April 1) | Anthesis Date<br>(days after April 1) | Mature Plant Height<br>(cm) | Plant Width<br>(cm) | Panicle Length<br>(cm) | Flag Leaf Length<br>(cm) | Flag Leaf Width<br>(mm) | Flag Leaf Height<br>(cm) | Flag Leaf Sheath Length<br>(cm) | Flag Leaf Internode Length<br>(cm) | Leaf Blade Length<br>(cm) | Leaf Blade Width<br>(mm) | Leaf Blade Height<br>(cm) | Leaf Sheath Length<br>(cm) |
|------------|-----------------------------------------|--------------------------------------|---------------------------------------|-----------------------------|---------------------|------------------------|--------------------------|-------------------------|--------------------------|---------------------------------|------------------------------------|---------------------------|--------------------------|---------------------------|----------------------------|
| Six Point  | 6.43                                    | 29.50                                | 57.50                                 | 94.43                       | 14.38               | 74.58                  | 32.23                    | 6.05                    | 40.85                    | 21.25                           | 17.13                              | 24.70                     | 8.75                     | 12.68                     | 10.28                      |
| Falcon IV  | 6.45                                    | 30.25                                | 57.25                                 | 87.60                       | 14.05               | 72.38                  | 30.23                    | 5.38                    | 35.45                    | 20.30                           | 14.63                              | 22.15                     | 8.03                     | 10.05                     | 9.08                       |
| Cortez II  | 6.78                                    | 31.25                                | 58.00                                 | 86.73                       | 13.13               | 69.83                  | 30.53                    | 5.25                    | 37.28                    | 19.83                           | 15.30                              | 22.38                     | 7.68                     | 11.58                     | 9.70                       |
| ATF804     | 6.63                                    | 36.00                                | 62.75                                 | 77.03                       | 12.20               | 62.45                  | 27.70                    | 4.95                    | 33.45                    | 18.30                           | 14.50                              | 20.30                     | 7.20                     | 9.65                      | 8.83                       |
| Forte      | 6.45                                    | 31.75                                | 58.25                                 | 88.78                       | 14.30               | 70.18                  | 30.30                    | 4.98                    | 39.60                    | 21.05                           | 16.15                              | 23.58                     | 7.78                     | 12.53                     | 10.20                      |
| Crewcut    | 5.23                                    | 32.75                                | 61.25                                 | 98.73                       | 15.30               | 76.25                  | 37.23                    | 7.00                    | 46.03                    | 23.73                           | 18.40                              | 29.28                     | 9.73                     | 15.80                     | 11.93                      |
| Rebel II   | 4.15                                    | 30.75                                | 60.25                                 | 113.53                      | 15.75               | 86.20                  | 42.50                    | 6.73                    | 54.38                    | 27.93                           | 22.43                              | 33.28                     | 9.88                     | 17.90                     | 13.88                      |
| KY-31      | 3.85                                    | 28.50                                | 58.25                                 | 127.18                      | 15.03               | 95.23                  | 46.28                    | 6.88                    | 63.98                    | 32.45                           | 24.35                              | 36.45                     | 10.30                    | 23.58                     | 16.28                      |
| LSD (0.05) | 0.16                                    | 1.86                                 | 1.46                                  | 4.47                        | 1.13                | 4.05                   | 2.06                     | 0.61                    | 3.11                     | 1.38                            | 1.54                               | 1.81                      | 0.57                     | 1.87                      | 0.74                       |
| CV         | 2.15                                    | 4.81                                 | 2.05                                  | 4.00                        | 6.69                | 4.59                   | 5.13                     | 8.71                    | 6.24                     | 5.16                            | 7.54                               | 5.95                      | 5.55                     | 11.85                     | 5.75                       |

Cultivar under evaluation

Significant difference over two locations one year.

Significant difference over one location one year.

Measurements taken in Talbot, Oregon

4 reps; 20 plants/rep = 80 data points



2004 Morphological Data - Location 2

Table 1B

| Cultivar  | Genetic Color<br>(Scale: 1-9<br>9=Darkest)<br>(6/24/06) | Heading Date<br>(days after April 1) | Anthesis Date<br>(days after April 1) | Mature Plant Height<br>(cm) | Plant Width<br>(cm) | Panicle Length<br>(cm) | Flag Leaf Length<br>(cm) | Flag Leaf Width<br>(mm) | Flag Leaf Height<br>(cm) | Flag Leaf Sheath Length<br>(cm) | Flag Leaf Internode Length<br>(cm) | Leaf Blade Length<br>(cm) | Leaf Blade Width<br>(mm) | Leaf Blade Height<br>(cm) | Leaf Sheath Length<br>(cm) |
|-----------|---------------------------------------------------------|--------------------------------------|---------------------------------------|-----------------------------|---------------------|------------------------|--------------------------|-------------------------|--------------------------|---------------------------------|------------------------------------|---------------------------|--------------------------|---------------------------|----------------------------|
| Six Point | 6.43                                                    | 23.50                                | 53.33                                 | 101.23                      | 19.38               | 77.05                  | 36.05                    | 4.55                    | 47.05                    | 23.50                           | 19.73                              | 32.05                     | 6.63                     | 17.58                     | 12.40                      |
| Falcon IV | 6.20                                                    | 25.25                                | 54.05                                 | 95.23                       | 18.20               | 70.35                  | 33.80                    | 5.25                    | 45.93                    | 21.83                           | 18.08                              | 30.10                     | 7.00                     | 19.38                     | 12.13                      |
| Cortez II | 6.75                                                    | 24.75                                | 53.35                                 | 92.55                       | 17.05               | 70.65                  | 32.10                    | 3.90                    | 42.83                    | 20.98                           | 17.28                              | 29.90                     | 6.05                     | 15.53                     | 11.83                      |
| ATF804    | 6.55                                                    | 30.50                                | 58.40                                 | 85.55                       | 16.13               | 63.95                  | 29.55                    | 4.13                    | 41.75                    | 19.90                           | 17.23                              | 25.93                     | 5.88                     | 15.48                     | 11.35                      |
| Forte'    | 6.60                                                    | 24.00                                | 53.33                                 | 96.25                       | 17.68               | 73.60                  | 35.10                    | 4.18                    | 45.15                    | 22.38                           | 18.45                              | 31.45                     | 6.00                     | 16.98                     | 12.23                      |
| Crewcut   | 5.33                                                    | 28.25                                | 57.60                                 | 107.18                      | 19.90               | 78.30                  | 40.13                    | 4.70                    | 55.15                    | 25.13                           | 21.73                              | 37.88                     | 7.03                     | 23.10                     | 14.30                      |
| Rebel II  | 4.15                                                    | 22.50                                | 52.85                                 | 126.05                      | 23.60               | 90.08                  | 47.10                    | 6.18                    | 66.45                    | 29.73                           | 26.15                              | 42.23                     | 8.35                     | 27.70                     | 16.33                      |
| KY-31     | 3.60                                                    | 21.00                                | 51.63                                 | 141.85                      | 22.90               | 95.50                  | 50.73                    | 6.25                    | 76.83                    | 34.60                           | 28.93                              | 47.70                     | 9.58                     | 35.93                     | 20.25                      |
| LSD(0.05) | 0.26                                                    | 2.22                                 | 1.24                                  | 5.25                        | 1.74                | 4.43                   | 2.58                     | 0.97                    | 3.83                     | 1.44                            | 1.39                               | 1.72                      | 0.94                     | 3.02                      | 0.74                       |
| CV        | 3.60                                                    | 7.06                                 | 1.88                                  | 4.36                        | 7.70                | 4.98                   | 5.90                     | 16.95                   | 6.45                     | 5.07                            | 5.86                               | 4.36                      | 11.31                    | 12.79                     | 4.71                       |

Cultivar under evaluation

■ Significant difference over two locations one year.

■ Significant difference over one location one year.

Measurements taken in Albany, Oregon

4 reps; 20 plants/rep = 80 data points

Table 2A 2004 Laboratory Morphological Data - Location 1

| Cultivar  | Lemma Length (mm) | Lemma Width (mm) | Lemma Awn Length (mm) | Palea Length (mm) | Palea Width (mm) | Glume Length (mm) | Length of Panicle from Lower Most Whorl to Tip (mm) | Spikelets per Panicle | Florets per Spikelet | Spikelet Length (mm) | Length of Longest Whorl (mm) | Distance Between Lower Most Whorls (mm) | Number of Spikelets on the Longest Whorl |
|-----------|-------------------|------------------|-----------------------|-------------------|------------------|-------------------|-----------------------------------------------------|-----------------------|----------------------|----------------------|------------------------------|-----------------------------------------|------------------------------------------|
| Six Point | 5.60              | 1.45             | 1.25                  | 6.10              | 1.33             | 4.45              | 211.48                                              | 84.00                 | 8.25                 | 12.93                | 97.38                        | 55.58                                   | 14.75                                    |
| Falcon IV | 5.63              | 1.45             | 1.45                  | 6.25              | 1.25             | 4.53              | 194.33                                              | 76.25                 | 7.50                 | 12.88                | 89.95                        | 53.60                                   | 13.00                                    |
| Cortez II | 5.43              | 1.40             | 1.38                  | 5.95              | 1.23             | 4.48              | 190.18                                              | 75.25                 | 8.00                 | 12.90                | 86.63                        | 50.78                                   | 13.25                                    |
| ATF804    | 5.38              | 1.38             | 1.30                  | 6.00              | 1.23             | 4.48              | 184.70                                              | 67.50                 | 7.75                 | 12.58                | 87.33                        | 51.38                                   | 11.50                                    |
| Forte'    | 5.38              | 1.35             | 1.43                  | 6.00              | 1.28             | 4.58              | 202.78                                              | 79.75                 | 7.75                 | 12.65                | 96.63                        | 54.90                                   | 14.00                                    |
| Crewcut   | 5.98              | 1.45             | 1.70                  | 6.63              | 1.30             | 5.10              | 254.85                                              | 97.75                 | 8.50                 | 14.40                | 121.00                       | 68.15                                   | 18.00                                    |
| Rebel II  | 6.13              | 1.53             | 1.70                  | 6.75              | 1.33             | 5.33              | 268.53                                              | 95.50                 | 7.50                 | 13.38                | 116.50                       | 66.48                                   | 15.75                                    |
| KY-31     | 6.10              | 1.43             | 1.50                  | 6.88              | 1.33             | 5.20              | 287.08                                              | 99.50                 | 7.50                 | 13.85                | 115.95                       | 73.40                                   | 14.00                                    |
| LSD(0.05) | 0.32              | 0.08             | 0.18                  | 0.22              | 0.07             | 0.25              | 15.17                                               | 7.88                  | 0.68                 | 0.72                 | 8.96                         | 3.75                                    | 2.10                                     |
| CV        | 4.71              | 4.90             | 10.39                 | 2.89              | 4.50             | 4.43              | 5.86                                                | 7.88                  | 7.32                 | 4.62                 | 7.69                         | 5.48                                    | 12.28                                    |

Cultivar under evaluation

■ Significant difference over two locations one year.

■ Significant difference over one location one year.

Measurements taken in Talbot, Oregon

4 reps; 20 plants/rep = 80 data points

Table 2B 2004 Laboratory Morphological Data - Location 2

| Cultivar  | Lemna Length (mm) | Lemna Width (mm) | Lemna Awn Length (mm) | Palea Length (mm) | Palea Width (mm) | Glume Length (mm) | Length of Panicle from Lower Most Whorl to Tip (mm) | Spikelets per Panicle | Florets per Spikelet | Spikelet Length (mm) | Length of Longest Whorl (mm) | Distance Between Lower Most Whorls (mm) | Number of Spikelets on the Longest Whorl |
|-----------|-------------------|------------------|-----------------------|-------------------|------------------|-------------------|-----------------------------------------------------|-----------------------|----------------------|----------------------|------------------------------|-----------------------------------------|------------------------------------------|
| Six Point | 5.10              | 1.43             | 1.43                  | 5.95              | 1.23             | 4.33              | 218.28                                              | 95.75                 | 6.50                 | 11.43                | 96.33                        | 55.88                                   | 17.00                                    |
| Falcon IV | 5.23              | 1.50             | 1.53                  | 5.93              | 1.23             | 4.45              | 215.45                                              | 91.75                 | 6.50                 | 11.53                | 94.28                        | 53.75                                   | 15.75                                    |
| Cortez II | 4.95              | 1.45             | 1.50                  | 5.80              | 1.23             | 4.33              | 197.85                                              | 84.25                 | 7.00                 | 11.40                | 86.03                        | 50.03                                   | 16.25                                    |
| ATF804    | 5.00              | 1.45             | 1.38                  | 5.83              | 1.23             | 4.30              | 185.40                                              | 74.25                 | 6.75                 | 11.30                | 83.40                        | 47.18                                   | 13.00                                    |
| Forte     | 5.00              | 1.48             | 1.48                  | 5.83              | 1.23             | 4.18              | 209.90                                              | 90.25                 | 6.25                 | 10.93                | 92.55                        | 52.63                                   | 15.75                                    |
| Crewcut   | 5.75              | 1.55             | 1.88                  | 6.55              | 1.28             | 5.00              | 256.05                                              | 96.50                 | 7.00                 | 12.63                | 112.75                       | 64.70                                   | 16.75                                    |
| Rebel II  | 5.70              | 1.55             | 1.73                  | 6.55              | 1.35             | 4.80              | 272.58                                              | 111.00                | 6.25                 | 12.20                | 114.43                       | 64.28                                   | 18.75                                    |
| KY-31     | 5.60              | 1.50             | 1.58                  | 6.70              | 1.30             | 4.95              | 299.45                                              | 117.75                | 6.50                 | 12.58                | 119.93                       | 71.55                                   | 16.50                                    |
| LSD(0.05) | 0.17              | 0.08             | 0.12                  | 0.21              | 0.06             | 0.22              | 11.53                                               | 9.18                  | 0.63                 | 0.71                 | 7.85                         | 3.10                                    | 2.64                                     |
| CV        | 2.68              | 4.52             | 6.42                  | 2.94              | 3.92             | 4.15              | 4.34                                                | 8.11                  | 7.92                 | 5.15                 | 6.88                         | 4.69                                    | 13.38                                    |

Cultivar under evaluation

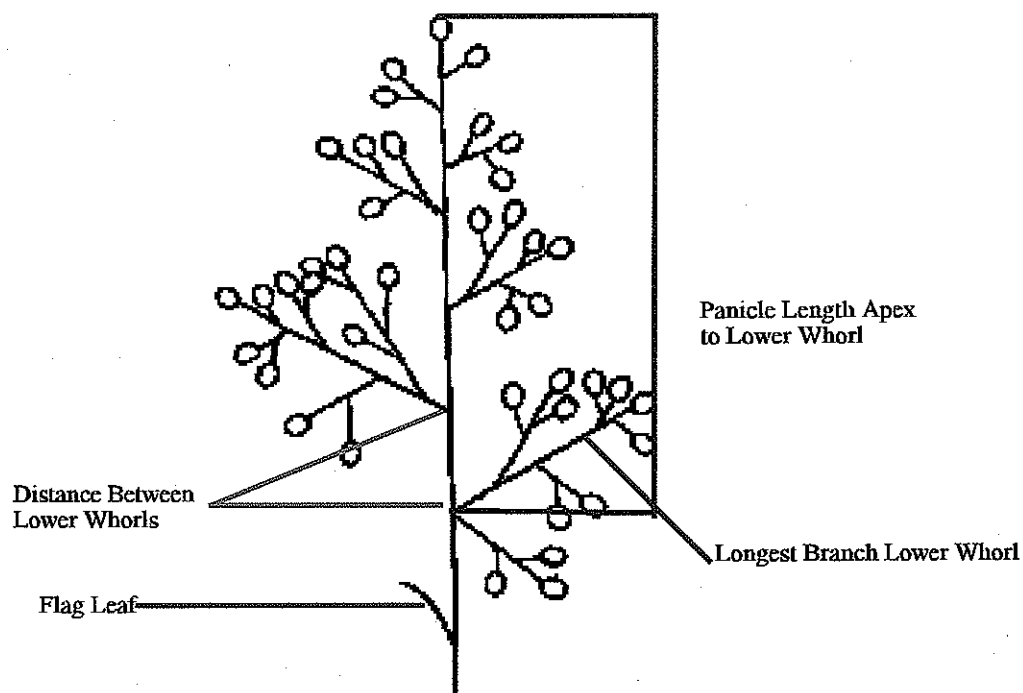
■ Significant difference over two locations one year.

■ Significant difference over one location one year.

Measurements taken in Albany, Oregon

4 reps; 20 plants/rep = 80 data points

### Panicle Type Inflorescence



**Illustration 1.**

Table 3A 2004 Additional Morphological Measurements of the Panicle - Location 1

| Cultivar  | Growth<br>Habit at<br>Anthesis<br>% Prostrate | Growth<br>Habit at<br>Anthesis<br>% Semi-Erect | Growth<br>Habit at<br>Anthesis<br>% Erect | Anther<br>Color<br>% Purple | Panicle<br>Color<br>% Purple | Lemma<br>Awn<br>% Present | Glume<br>Color<br>% Purple | Panicle<br>Orientation<br>% Nodding | Panicle<br>Shape<br>% Ovate | Panicle<br>Type<br>% Open | Panicle<br>Branch<br>Lower<br>Whorl<br>=1 | Panicle<br>Branch<br>Lower<br>Whorl<br>=2 | Panicle<br>Branch<br>Lower<br>Whorl<br>>3 | Panicle<br>Branch<br>Pubescence<br>% Present |
|-----------|-----------------------------------------------|------------------------------------------------|-------------------------------------------|-----------------------------|------------------------------|---------------------------|----------------------------|-------------------------------------|-----------------------------|---------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|----------------------------------------------|
| Six Point | 1                                             | 65                                             | 34                                        | 4                           | 5                            | 96                        | 0                          | 0                                   | 36                          | 36                        | 15                                        | 84                                        | 1                                         | 3                                            |
| Falcon IV | 0                                             | 65                                             | 35                                        | 1                           | 6                            | 100                       | 1                          | 1                                   | 26                          | 26                        | 14                                        | 80                                        | 6                                         | 0                                            |
| Cortez II | 0                                             | 64                                             | 36                                        | 0                           | 1                            | 99                        | 0                          | 3                                   | 48                          | 48                        | 21                                        | 71                                        | 8                                         | 1                                            |
| ATF804    | 0                                             | 81                                             | 19                                        | 1                           | 0                            | 100                       | 0                          | 1                                   | 50                          | 50                        | 9                                         | 85                                        | 6                                         | 4                                            |
| Forte'    | 0                                             | 70                                             | 30                                        | 3                           | 4                            | 100                       | 0                          | 1                                   | 53                          | 53                        | 15                                        | 81                                        | 4                                         | 1                                            |
| Crewcut   | 0                                             | 81                                             | 19                                        | 1                           | 6                            | 100                       | 0                          | 8                                   | 41                          | 41                        | 21                                        | 78                                        | 1                                         | 5                                            |
| Rebel II  | 13                                            | 74                                             | 13                                        | 4                           | 13                           | 100                       | 1                          | 19                                  | 41                          | 41                        | 20                                        | 76                                        | 4                                         | 1                                            |
| KY-31     | 16                                            | 84                                             | 0                                         | 1                           | 5                            | 100                       | 0                          | 14                                  | 44                          | 44                        | 13                                        | 80                                        | 7                                         | 8                                            |

■ Cultivar under evaluation

■ Significant difference over two locations one year.

■ Significant difference over one location one year.

Measurements taken in Talbot, Oregon

4 reps; 20 plants/rep = 80 data points

# 2005 00172

Table 3B 2004 Additional Morphological Measurements of the Panicle - Location 2

| Cultivar  | Growth<br>Habit at<br>Anthesis<br>% Prostrate | Growth<br>Habit at<br>Anthesis<br>% Semi-Erect | Growth<br>Habit at<br>Anthesis<br>% Erect | Anther<br>Color<br>% Purple | Panicle<br>Color<br>% Purple | Lemna<br>Awn<br>% Present | Glume<br>Color<br>% Purple | Panicle<br>Orientation<br>% Nodding | Panicle<br>Shape<br>% Ovate | Panicle<br>Type<br>% Open | Panicle<br>Branch<br>Lower<br>Whorl<br>=1 | Panicle<br>Branch<br>Lower<br>Whorl<br>=2 | Panicle<br>Branch<br>Lower<br>Whorl<br>>3 | Panicle<br>Branch<br>Pubescence<br>% Present |
|-----------|-----------------------------------------------|------------------------------------------------|-------------------------------------------|-----------------------------|------------------------------|---------------------------|----------------------------|-------------------------------------|-----------------------------|---------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|----------------------------------------------|
| Six Point | 0                                             | 83                                             | 18                                        | 6                           | 13                           | 98                        | 3                          | 3                                   | 38                          | 38                        | 24                                        | 75                                        | 1                                         | 0                                            |
| Falcon IV | 0                                             | 78                                             | 22                                        | 1                           | 14                           | 98                        | 2                          | 9                                   | 49                          | 49                        | 19                                        | 80                                        | 1                                         | 0                                            |
| Cortez II | 1                                             | 89                                             | 10                                        | 4                           | 4                            | 96                        | 4                          | 6                                   | 39                          | 39                        | 39                                        | 54                                        | 7                                         | 0                                            |
| ATF804    | 3                                             | 79                                             | 19                                        | 23                          | 8                            | 95                        | 4                          | 10                                  | 55                          | 55                        | 15                                        | 79                                        | 6                                         | 1                                            |
| Forté     | 3                                             | 81                                             | 16                                        | 1                           | 8                            | 96                        | 1                          | 6                                   | 41                          | 41                        | 15                                        | 82                                        | 3                                         | 0                                            |
| Crewcut   | 0                                             | 95                                             | 5                                         | 5                           | 8                            | 99                        | 4                          | 4                                   | 54                          | 54                        | 14                                        | 85                                        | 1                                         | 3                                            |
| Rebel II  | 4                                             | 81                                             | 15                                        | 3                           | 6                            | 100                       | 3                          | 16                                  | 33                          | 33                        | 23                                        | 76                                        | 1                                         | 1                                            |
| KY-31     | 8                                             | 89                                             | 4                                         | 3                           | 6                            | 88                        | 5                          | 34                                  | 38                          | 38                        | 5                                         | 90                                        | 5                                         | 4                                            |

■ Cultivar under evaluation

■ Significant difference over two locations one year.

■ Significant difference over one location one year.

Measurements taken in Albany, Oregon

4 reps; 20 plants/rep = 80 data points

Table 4A 2004 Additional Morphological Measurements - Location 1

| Cultivar  | Anthocyanin Present in the Leaf Blade % Purple | Leaf Blade Margin Roughness to the Touch % Smooth | Leaf Blade Margin Roughness to the Touch % Semi-Rough | Leaf Blade Margin Roughness to the Touch % Rough | Leaf Blade Margin | Leaf Blade Margin Hairs % Present | Leaf Sheath Auricle Hairs % Present | Rhizomes % Present | Lemma Hairs % Present | Palea Hairs % Present | Node Color % Distinct | Seed Weight (mg/1,000 seeds) |
|-----------|------------------------------------------------|---------------------------------------------------|-------------------------------------------------------|--------------------------------------------------|-------------------|-----------------------------------|-------------------------------------|--------------------|-----------------------|-----------------------|-----------------------|------------------------------|
| Six Point | 0                                              | 0                                                 | 30                                                    | 70                                               |                   | 95                                | 100                                 | 0                  | 100                   | 100                   | 0                     | 1764                         |
| Falcon IV | 0                                              | 0                                                 | 25                                                    | 75                                               |                   | 90                                | 100                                 | 0                  | 100                   | 100                   | 4                     | 1847                         |
| Cortez II | 0                                              | 1                                                 | 29                                                    | 70                                               |                   | 81                                | 100                                 | 0                  | 89                    | 100                   | 3                     | 2343                         |
| ATF-804   | 0                                              | 0                                                 | 32                                                    | 68                                               |                   | 78                                | 100                                 | 6                  | 94                    | 100                   | 1                     | 2505                         |
| Forte'    | 0                                              | 0                                                 | 24                                                    | 76                                               |                   | 89                                | 100                                 | 0                  | 99                    | 100                   | 1                     | 2725                         |
| Crewcut   | 0                                              | 1                                                 | 41                                                    | 58                                               |                   | 93                                | 100                                 | 1                  | 100                   | 100                   | 5                     | 2176                         |
| Rebel II  | 0                                              | 5                                                 | 51                                                    | 44                                               |                   | 96                                | 100                                 | 1                  | 100                   | 100                   | 23                    | 2250                         |
| KY-31     | 0                                              | 5                                                 | 56                                                    | 39                                               |                   | 93                                | 100                                 | 0                  | 100                   | 100                   | 24                    | 1893                         |

Cultivar under evaluation

■ Significant difference over two locations one year.

■ Significant difference over one location one year.

Measurements taken in Talbot, Oregon

4 reps; 20 plants/rep = 80 data points

Table 4B 2004 Additional Morphological Measurements - Location 2

| Cultivar  | Anthocyanin Present in the Leaf Blade % Purple | Leaf Blade Margin Roughness to the Touch % Smooth | Leaf Blade Margin Roughness to the Touch % Semi-Rough | Leaf Blade Margin Roughness to the Touch % Rough | Leaf Blade Margin Hairs % Present | Leaf Blade Hairs % Present | Leaf Sheath Auricle Hairs % Present | Rhizomes % Present | Lemna Hairs % Present | Palea Hairs % Present | Node Color % Distinct | Seed Weight (mg/1,000 seeds) |
|-----------|------------------------------------------------|---------------------------------------------------|-------------------------------------------------------|--------------------------------------------------|-----------------------------------|----------------------------|-------------------------------------|--------------------|-----------------------|-----------------------|-----------------------|------------------------------|
| Six Point | 0                                              | 19                                                | 58                                                    | 23                                               | 89                                | 100                        | 100                                 | 5                  | 100                   | 100                   | 18                    | 1785                         |
| Falcon IV | 0                                              | 8                                                 | 62                                                    | 30                                               | 94                                | 100                        | 100                                 | 1                  | 100                   | 100                   | 14                    | 1862                         |
| Cortez II | 0                                              | 8                                                 | 62                                                    | 30                                               | 94                                | 100                        | 100                                 | 4                  | 100                   | 100                   | 25                    | 2305                         |
| ATF804    | 0                                              | 3                                                 | 73                                                    | 24                                               | 94                                | 100                        | 100                                 | 6                  | 100                   | 100                   | 19                    | 2487                         |
| Forte     | 0                                              | 6                                                 | 74                                                    | 20                                               | 99                                | 100                        | 100                                 | 6                  | 100                   | 100                   | 16                    | 2711                         |
| Crewcut   | 0                                              | 11                                                | 66                                                    | 23                                               | 98                                | 100                        | 100                                 | 4                  | 100                   | 100                   | 23                    | 2175                         |
| Rebel II  | 0                                              | 29                                                | 53                                                    | 18                                               | 93                                | 100                        | 100                                 | 4                  | 100                   | 100                   | 38                    | 2486                         |
| KY-31     | 0                                              | 16                                                | 61                                                    | 23                                               | 93                                | 100                        | 100                                 | 3                  | 100                   | 100                   | 63                    | 1813                         |

Cultivar under evaluation

■ Significant difference over two locations one year.

■ Significant difference over one location one year.

Measurements taken in Albany, Oregon

4 reps; 20 plants/rep = 80 data points



U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIETY PROTECTION OFFICE

# **EXHIBIT E** **STATEMENT OF THE BASIS OF OWNERSHIP**

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

#200500172

|                                                                                                                                                                                  |                                                               |                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------------------|
| 1. NAME OF APPLICANT(S)<br><i>The State University of New Jersey</i><br>Rutgers University - Cook College<br>100 Dr. Williams Highway<br>(ST: 8/4/2006)                          | 2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER<br><br>POD    | 3. VARIETY NAME<br><br>Six Point                            |
| 4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)<br>Foran Hall<br>Plant Biology & Pathology Dept.<br>59 Dudley Road<br>New Brunswick, NJ 08901 | 5. TELEPHONE (include area code)<br>(732) 932 - 9711 ext. 160 | 6. FAX (include area code)<br>(732) 932 - 9441<br>200500172 |
| 7. PVPO NUMBER                                                                                                                                                                   |                                                               |                                                             |

8. Does the applicant own all rights to the variety? Mark an "X" in appropriate block. If no, please explain.

☒ YES ☐ NO

9. Is the applicant (individual or company) a U.S. national or U.S. based company?

If no, give name of country \_\_\_\_\_

☒ YES ☐ NO

10. Is the applicant the original breeder? If no, please answer the following:

a. If original rights to variety were owned by individual (s):

Is (are) the original breeder(s) a U.S. national(s)? If no give name of country \_\_\_\_\_

☒ YES ☐ NO

b. If original rights to variety were owned by a company:

Is the original breeder(s) U.S. based company? If no give name of country \_\_\_\_\_

☒ YES ☐ NO

11. Additional explanation on ownership (If needed, use reverse for extra space):

## PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

- If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
- If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
- If the applicant is an owner who is not the original breeder, both the original breeder and the applicant must meet one of the above criteria.

The original breeder may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

Public reporting burden for this collection of information is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Jamie L. Whitten Building, Washington D.C. 20250. When replying, refer to OMB No. 0581-0055 and form number in your letter.

Under the PRA of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

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To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington D.C., 20250, or call (202) 720-7327 (Voice) or (202) 720-1127 (TDD). USDA is an equal employment opportunity employer.

STD-470-E (03-96)

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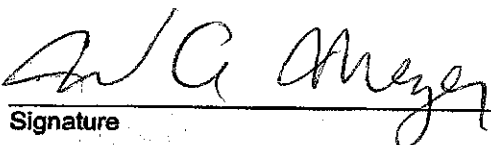
To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

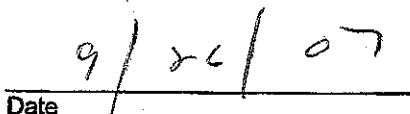
**U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY  
PLANT VARIETY PROTECTION OFFICE  
BELTSVILLE, MD 20705**

**EXHIBIT F  
DECLARATION REGARDING DEPOSIT**

|                                                                                                                                                                         |                                                                                                                                                                          |                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| <b>NAME OF OWNER (S)</b><br>Rutgers, The State<br>University of New Jersey                                                                                              | <b>ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country)</b><br>Foran Hall<br>Plant Biology & Pathology<br>59 Dudley Road<br>New Brunswick, NJ 08901 | <b>TEMPORARY OR EXPERIMENTAL DESIGNATION</b><br>POD                     |
| <b>NAME OF OWNER REPRESENTATIVE (S)</b><br>Dr. William Meyer<br>c/o Rutgers University<br>Plant Biology & Pathology<br>Dept., 59 Dudley Road<br>New Brunswick, NJ 08901 | <b>ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country)</b><br>                                                                                     | <b>VARIETY NAME</b><br>Six Point<br><br><b>PVPO NUMBER</b><br>20050017a |

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.

  
Signature

  
Date